

Appl. No.: 09/966,538
Amdt. Dated October 25, 2005
Response to Office Action of July 11, 2005

REMARKS/ARGUMENTS

Claims 1-27 are currently pending in the present application. Claims 8, 9 and 23 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Examiner has also rejected claims 10, 11, 13-19 and 26 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,771,661 to Chawla et al. in view of Applicant Admitted Prior Art. Claims 1-9, 12, 20-22, 25 and 27 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chawla, Applicant Admitted Prior Art, in view of U.S. Patent No. 6,128,713 issued to Eisler et al. Claims 23 and 24 have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chawla, Applicant Admitted Prior Art, and Eisler in further view of U.S. Patent Publ. No. 2002-0194326 to Gold et al.

As to the rejection of claim 23 based on 35 U.S.C. § 112, second paragraph, Applicant has amended the claim to omit the "(c)" from the claim language to cure the alleged defect cited by the Examiner. As to the rejection of claims 8 and 9 based on 35 U.S.C. § 112, second paragraph, Applicant respectfully traverses the rejection. Specifically, the term "second allocation" when read in the context of the remaining claim language is not indefinite. Rather, claim 23 states that at least one dynamic partition object "has at least one attribute defining a first allocation of a network resource . . . and at least one attribute defining a second allocation, within the first allocation, of the network resource across all data flows corresponding to a user." Accordingly, the claim language clearly states that the second allocation is an allocation "within the first allocation" of the same "network resource." Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 8 and 9 on the basis set forth in the Office Action.

The claims pending in the application have been rejected based at least in part on the combination of Chawla and applicant admitted prior art (AAPA). Specifically, the Examiner alleges that AAPA includes the concept of a network administrator manually adding partitions corresponding to individual users. The Examiner further alleges that the manual configuration of user partitions in combination with Chawla teaches the claimed combination.

The combination of Chawla and AAPA does not teach or suggest the claimed invention involving the dynamic recognition of new users based on the packets of the data flows, and allocation of resources as defined in the pending claims. As set forth above, the claims have been

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amended to include that the identification of new users is based on at least one attribute of a packet in a data flow. Claim 8 has been amended such that the determination of a new user is triggered upon detection of a new data flow. As the Examiner admits, Chawla does not teach the identification of new users. Chawla teaches a network device that, in response to explicit RSVP messages external to a data flow or stream, allocates bandwidth to traffic streams or sessions identified in the RSVP messages. Indeed, as Chawla discloses, bandwidth allocations are set up and torn down based on explicit messages that are not part of (that is, external to) the data flows. For example, Chawla discloses a system where a host first sends an RSVP message requesting an allocation of bandwidth for a stream or session. To receive the requested allocation, the packets, associated with the stream or session, identify a TSpec that was also included in the RSVP message. As to the AAPA alleged by the Examiner, the manual configuration of a partition for a user requires prior knowledge of information that identifies the user, such as an IP address. Specifically, in order to allow a network device to recognize a new user, a network administrator must provide certain identifying information to allow the network device to apply the appropriate policy (such as a static partition) to the data flows corresponding to the user. Accordingly, the combination of Chawla and AAPA does not disclose the present invention. Specifically, the manual configuration of user partitions (where prior knowledge of the user is required) does not disclose a system that does not require such configuration information. Neither Chawla nor AAPA disclose how new users are detected. Moreover, at best, the alleged combination would teach a system where a static user partition would be created in response to a message, external to a data flow (e.g., an RSVP message), that identifies a new user. As discussed above, the claimed invention identifies new users based on packets of the data flows, rather than external messages.

In addition, at paragraph 10 of the Office Action, the Examiner appears to allege that Chawla discloses the creation of a partition in response to a new user. Chawla, however, appears to disclose the allocation of network resources to a stream or session in response to an explicit request (in Chawla, an RSVP request message). The user in Chawla could be an existing or new user. Still further, as to claims 23 and 24, the cited references do not support the Examiner's contentions. No cited reference discloses a cap on the number of users that can be

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assigned a user partition. Furthermore, no cited reference discloses the use of overflow partitions when a cap has been exceeded. In addition, Applicant's reference to Col. 5, lines 11-15, and Col. 6, lines 54-58 do not support the Examiner's contention that overflow partitions are disclosed, regardless of which reference in the cited references the citations are to be applied. In addition, Gold does not teach a dynamic system. Rather, Gold appears to merely teach a system that estimates resource utilization corresponding to a network data storage server based on an existing group of users. This estimated resource utilization can be used to determine whether to allow a new user account. Gold, however, does not teach a system that reclaims partitions associated with inactive users for use by subsequent new users. Further, Gold does not teach a system that assigns users to an overflow partition when a cap has been exceeded. Lastly, the use of four references to allegedly achieve the claimed inventions suggests that the Examiner has engaged in impermissible hindsight reconstruction.

Moreover, the subject matter defined in claims 23 and 24 (as well as the subject matter in other claims in the application) can be used to address the following situation: Assume for didactic purposes that a small college has enough bandwidth to guarantee 100Kbps to 1000 students. The college has more students; however, it is estimated that approximately up to 1000 students may access the network at any given time. Applicant admitted prior art would require the configuration of static user partitions for all students, which may exceed the memory capacity of the network device that manages network bandwidth. In addition, access by more than 1000 students at a given time would result in oversubscription. Nothing in the cited prior art teaches an efficient or workable solution to these problems. Chawla does not teach the identification of new users in data flows, or the management of aggregate bandwidth on a per-user level. Application of the teachings in Gold would result in a system that grants network access to the first 1000 students to register, excluding the others until network capacity is increased. Eisler teaches away from the invention as it discloses swapping least recently accessed data stored in one type of storage (i.e., physical memory or RAM) to a second type of storage (i.e., a hard drive or (virtual) memory) in response to a new request for data access. The teachings of Eisler, therefore, are inapposite as there is no opportunity in the claimed invention for 'virtual' bandwidth or a second type of network access. Furthermore, the cited prior art does

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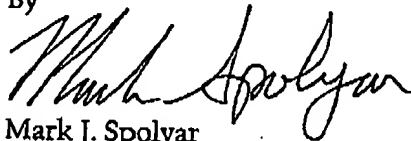
not teach the use of overflow partitions into which user data flows could be placed when more than 1000 students concurrently accessed the network.

In light of the foregoing, Applicant believes that all currently pending claims are presently in condition for allowance. Applicant respectfully requests a timely Notice of Allowance be issued in this case. If the Examiner believes that any further action by Applicant is necessary to place this application in condition for allowance, Applicants request a telephone conference with the undersigned at the telephone number set forth below.

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